Supporting Information – Figure Legends

Fig. S1.

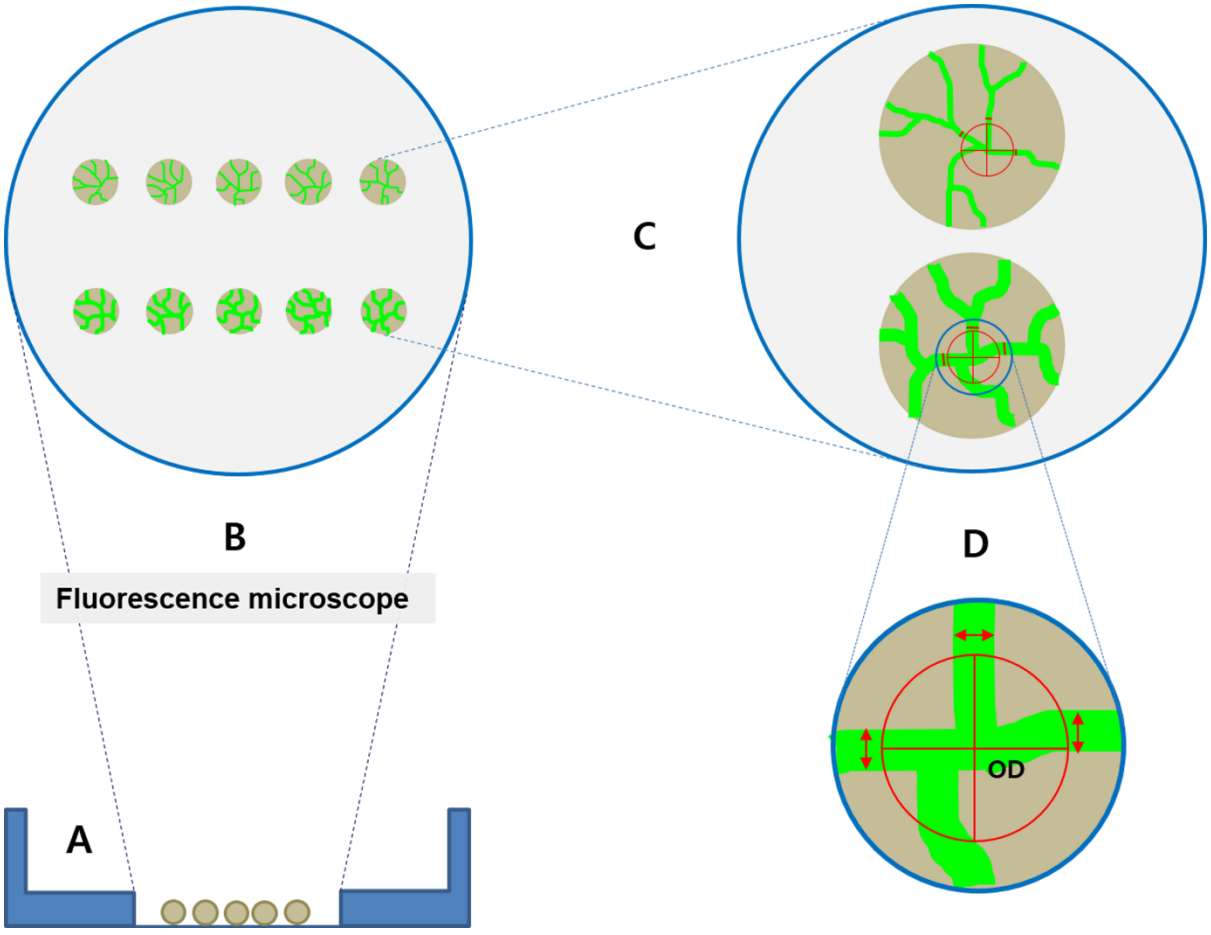

Fig. S1. Diagram depicting measurement of the hyaloid-retinal vessels diameter. (A) Lens in a dish with a coverglass. (B) Lens alignments under the fluorescence microscope. The optic disc (OD) was displayed up. (C) Fluorescence microscopy images. (D) The diameter of hyaloid vessels was measured in three main branches (red arrow) from the OD into the first branch (~30 μm) using Image J software.

Fig. S2

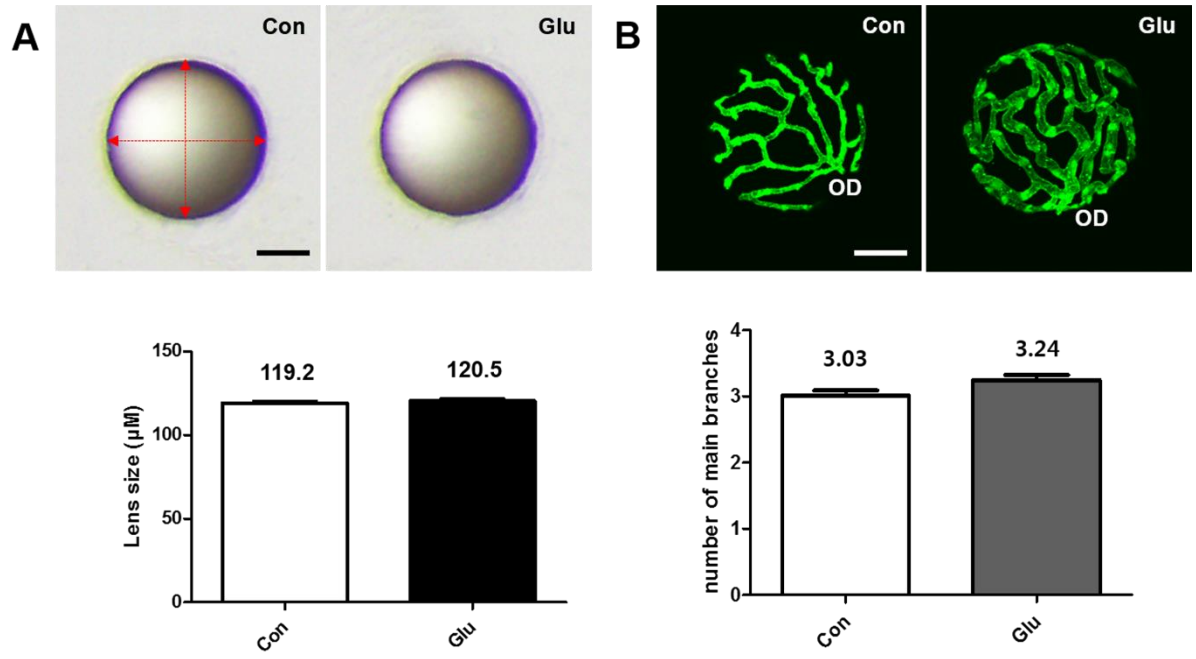

Fig. S2. Morphological effects on the patterning of the hyaloid vessels and lens size by HG. (A) The size of lenses were normal in control and HG-treated larvae. Control larvae, n=38; HG-treated larvae, n=40. Scale bar = 40 μm. (B) The number of main branches from the optic disc (OD) was counted in control and glucose-treated larvae. Control larvae, n=76; HG-treated larvae, n=72. Scale bar = 40 μm.

Fig. S3.

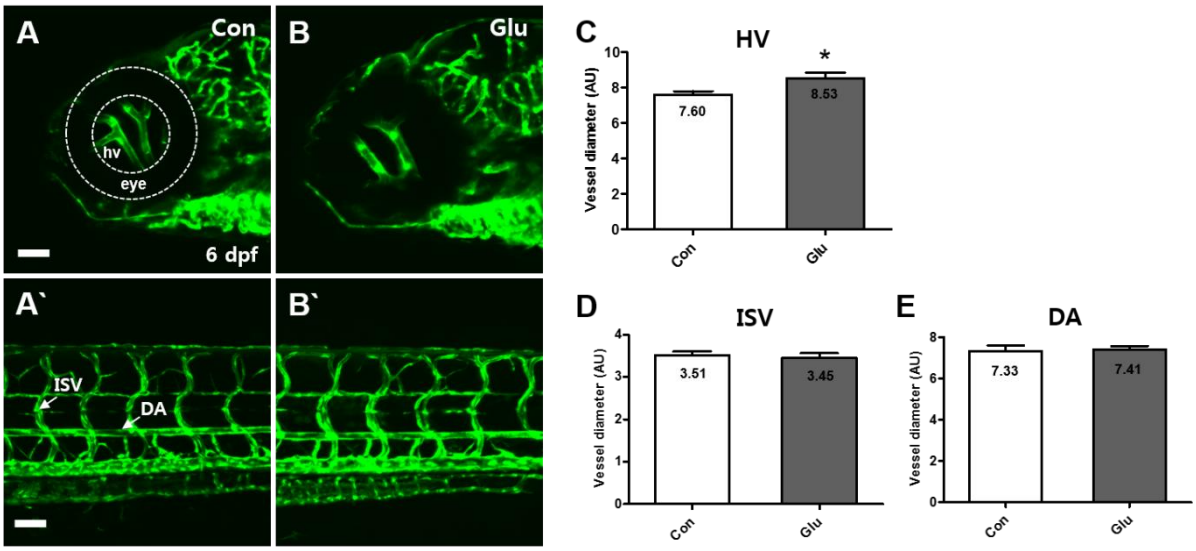

Fig. S3. Repersentative images of hyaloid-retinal vessels and trunk vessels in 6 dpf zebrafish. (A,A`,B,B`) There were no differences in intersomite vessels (ISVs) and dorsal aorta (DA) between the control (A, A`) and HG-treated groups (B, B`). 250× magnification, n=4 in each group. Scale bar = 50 μm. (C-E) The graph displays the mean artificial unit (AU) for diameter of ISVs and DA. The vessel diameter of each region was measured three times. The experiment was repeated triplicate. *P < 0.05 vs. control.